

Supplementary Table 2

ST to ABA

LASSO, alpha=0.1

auroc file = "STtoABA\_ABAall\_f1\_Op1\_051420.csv"

**AUROC = 1; path length = 2**

Brain Area 1				Brain Area 2			
id	acronym	name	parent	id	acronym	name	parent
9 SSp-tr6a		Primary somatosensory area, trunk, layer 6a	361	1086 SSp-tr4		Primary somatosensory area, trunk, layer 4	361
9 SSp-tr6a		Primary somatosensory area, trunk, layer 6a	361	670 SSp-tr2/3		Primary somatosensory area, trunk, layer 2/3	361
1005 AUDp6b		Primary auditory area, layer 6b	1002	735 AUDp1		Primary auditory area, layer 1	1002
1102 SSp-m6a		Primary somatosensory area, mouth, layer 6a	345	950 SSp-m4		Primary somatosensory area, mouth, layer 4	345
1066 VISam2/3		Anteromedial visual area, layer 2/3	394	1046 VISam6a		Anteromedial visual area, layer 6a	394
308 PTLp6a		Posterior parietal association areas, layer 6a	22	241 PTLp2/3		Posterior parietal association areas, layer 2/3	22
1030 SSp-II1		Primary somatosensory area, lower limb, layer 1	337	478 SSp-II6a		Primary somatosensory area, lower limb, layer 6a	337
905 VISal2/3		Anterolateral visual area, layer 2/3	402	601 VISal6a		Anterolateral visual area, layer 6a	402
600 AUDd2/3		Dorsal auditory area, layer 2/3	1011	156 AUDd6a		Dorsal auditory area, layer 6a	1011
251 AUDp2/3		Primary auditory area, layer 2/3	1002	847 AUDp5		Primary auditory area, layer 5	1002
583 CLA		Clastrum	703	780 PA		Posterior amygdalar nucleus	703
1035 SSs4		Supplemental somatosensory area, layer 4	378	862 SSs6a		Supplemental somatosensory area, layer 6a	378
729 TEa6a		Temporal association areas, layer 6a	541	97 TEa1		Temporal association areas, layer 1	541
478 SSp-II6a		Primary somatosensory area, lower limb, layer 6a	337	113 SSp-II2/3		Primary somatosensory area, lower limb, layer 2/3	337
816 AUDp4		Primary auditory area, layer 4	1002	954 AUDp6a		Primary auditory area, layer 6a	1002

**AUROC <= 0.5; path length = 2**

Brain Area 1				Brain Area 2			
id	acronym	name	parent	id	acronym	name	parent
1114 VISal4		Anterolateral visual area, layer 4	402	1074 VISal1		Anterolateral visual area, layer 1	402
606 RSPv2		Retrosplenial area, ventral part, layer 2	886	622 RSPv6b		Retrosplenial area, ventral part, layer 6b	886
472 MEApd-a		Medial amygdalar nucleus, posterodorsal part, sublayer a	426	480 MEApd-b		Medial amygdalar nucleus, posterodorsal part, sublayer b	426
1072 MGd		Medial geniculate complex, dorsal part	475	1088 MGM		Medial geniculate complex, medial part	475
1088 MGm		Medial geniculate complex, medial part	475	1079 MGv		Medial geniculate complex, ventral part	475
980 PMd		Dorsal premammillary nucleus	467	1004 PMv		Ventral premammillary nucleus	467
559 CEA		Central amygdalar nucleus, medial part	536	544 CEAc		Central amygdalar nucleus, capsular part	536
281 VISam1		Anteromedial visual area, layer 1	394	1066 VISam2/3		Anteromedial visual area, layer 2/3	394
1042 TTd2		Taenia tecta, dorsal part, layer 2	597	1050 TTd3		Taenia tecta, dorsal part, layer 3	597
148 GU4		Gustatory areas, layer 4	1057	187 GUS		Gustatory areas, layer 5	1057
148 GU4		Gustatory areas, layer 4	1057	662 GU6b		Gustatory areas, layer 6b	1057
783 Ald6a		Agranular insular area, dorsal part, layer 6a	104	1101 Ald5		Agranular insular area, dorsal part, layer 5	104
381 SNr		Substantia nigra, reticular part	323	616 CUN		Cuneiform nucleus	323
74 VIS1a		Lateral visual area, layer 6a	409	973 VIS2/3		Lateral visual area, layer 2/3	409
74 VIS1a		Lateral visual area, layer 6a	409	421 VIS1		Lateral visual area, layer 1	409
416 PAA2		Piriform-amygdalar area, pyramidal layer	788	424 PAA3		Piriform-amygdalar area, polymorph layer	788
868 PBld		Parabrachial nucleus, lateral division, dorsal lateral part	881	891 PBIV		Parabrachial nucleus, lateral division, ventral lateral part	881
1106 VISC2/3		Visceral area, layer 2/3	677	897 VISC1		Visceral area, layer 1	677
194 LHA		Lateral hypothalamic area	290	173 RCH		Retrochiasmatic area	290
194 LHA		Lateral hypothalamic area	290	226 LPO		Lateral preoptic area	290
194 LHA		Lateral hypothalamic area	290	364 PSTN		Parasubthalamic nucleus	290
368 PERI6b		Perirhinal area, layer 6b	922	692 PERI5		Perirhinal area, layer 5	922
368 PERI6b		Perirhinal area, layer 6b	922	888 PERI2/3		Perirhinal area, layer 2/3	922
1102 SSp-m6a		Primary somatosensory area, mouth, layer 6a	345	2 SSp-m6b		Primary somatosensory area, mouth, layer 6b	345
969 ORBv1		Orbital area, ventrolateral part, layer 1	746	608 ORBvl6a		Orbital area, ventrolateral part, layer 6a	746
401 VISam4		Anteromedial visual area, layer 4	394	1046 VISam6a		Anteromedial visual area, layer 6a	394
401 VISam4		Anteromedial visual area, layer 4	394	441 VISam6b		Anteromedial visual area, layer 6b	394
540 PERI1		Perirhinal area, layer 1	922	692 PERI5		Perirhinal area, layer 5	922
540 PERI1		Perirhinal area, layer 1	922	888 PERI2/3		Perirhinal area, layer 2/3	922
189 RH		Rhomboïd nucleus	51	599 CM		Central medial nucleus of the thalamus	51
880 DTN		Dorsal tegmental nucleus	987	898 PCG		Pontine central gray	987
1066 VISam2/3		Anteromedial visual area, layer 2/3	394	441 VISam6b		Anteromedial visual area, layer 6b	394
255 AV		Anteroventral nucleus of thalamus	239	1113 IAD		Interanterodorsal nucleus of the thalamus	239
965 RSPagl2/3		Retrosplenial area, lateral agranular part, layer 2/3	894	774 RSPagl5		Retrosplenial area, lateral agranular part, layer 5	894
167 AOND		Anterior olfactory nucleus, dorsal part	159	160 AON1		Anterior olfactory nucleus, layer 1	159
167 AOND		Anterior olfactory nucleus, dorsal part	159	183 AON1		Anterior olfactory nucleus, lateral part	159
308 PTLp6a		Posterior parietal association areas, layer 6a	22	340 PTLp6b		Posterior parietal association areas, layer 6b	22
272 AVPV		Anteroventral periventricular nucleus	141	286 SCH		Suprachiasmatic nucleus	141
272 AVPV		Anteroventral periventricular nucleus	141	523 MPO		Medial preoptic area	141
1081 ILA6b		Infralimbic area, layer 6b	44	707 ILA1		Infralimbic area, layer 1	44
1081 ILA6b		Infralimbic area, layer 6b	44	827 ILA5		Infralimbic area, layer 5	44
1081 ILA6b		Infralimbic area, layer 6b	44	556 ILA2/3		Infralimbic area, layer 2/3	44
263 AVP		Anteroventral preoptic nucleus	141	126 PVp		Periventricular hypothalamic nucleus, posterior part	141
1093 PRNc		Pontine reticular nucleus, caudal part	987	534 SUT		Supratrigeminal nucleus	987
240 COApM1		Cortical amygdalar area, posterior part, medial zone, layer 1	663	248 COApM2		Cortical amygdalar area, posterior part, medial zone, layer 2	663
687 RSPv5		Retrosplenial area, ventral part, layer 5	886	622 RSPv6b		Retrosplenial area, ventral part, layer 6b	886
139 ENT15		Entorhinal area, lateral part, layer 5	918	92 ENT14		Entorhinal area, lateral part, layer 4	918
1030 SSp-II1		Primary somatosensory area, lower limb, layer 1	337	113 SSp-II2/3		Primary somatosensory area, lower limb, layer 2/3	337
574 TRN		Tegmental reticular nucleus	987	534 SUT		Supratrigeminal nucleus	987
837 SUBd-sr		Subiculum, dorsal part, stratum radium	509	845 SUBd-sp		Subiculum, dorsal part, pyramidal layer	509
935 ACAd1		Anterior cingulate area, dorsal part, layer 1	39	211 ACAd2/3		Anterior cingulate area, dorsal part, layer 2/3	39
897 VISC1		Visceral area, layer 1	677	857 VISC6a		Visceral area, layer 6a	677

575 CL	Central lateral nucleus of the thalamus	51	599 CM	Central medial nucleus of the thalamus	51
1074 VISal1	Anterolateral visual area, layer 1	402	905 VISal2/3	Anterolateral visual area, layer 2/3	402
1074 VISal1	Anterolateral visual area, layer 1	402	233 VISal5	Anterolateral visual area, layer 5	402
544 CEAc	Central amygdalar nucleus, capsular part	536	551 CEAl	Central amygdalar nucleus, lateral part	536
431 CA2slm	Field CA2, stratum lacunosum-moleculare	423	454 CA2sr	Field CA2, stratum radiatum	423
303 BLAa	Basolateral amygdalar nucleus, anterior part	295	451 BLAv	Basolateral amygdalar nucleus, ventral part	295
266 Lsv	Lateral septal nucleus, ventral part	242	258 LSr	Lateral septal nucleus, rostral (rostroventral) part	242
527 AUDd1	Dorsal auditory area, layer 1	1011	600 AUDd2/3	Dorsal auditory area, layer 2/3	1011
646 DP5	Dorsal peduncular area, layer 5	814	496 DP1	Dorsal peduncular area, layer 1	814
118 PVi	Periventricular hypothalamic nucleus, intermediate part	157	223 ARH	Arcuate hypothalamic nucleus	157
616 CUN	Cuneiform nucleus	323	214 RN	Red nucleus	323
772 ACAv5	Anterior cingulate area, ventral part, layer 5	48	810 ACAv6a	Anterior cingulate area, ventral part, 6a	48
269 VISpl2/3	Posterolateral visual area, layer 2/3	425	377 VISpl6a	Posterolateral visual area, layer 6a	425
269 VISpl2/3	Posterolateral visual area, layer 2/3	425	902 VISpl5	Posterolateral visual area, layer 5	425
486 CA3so	Field CA3, stratum oriens	463	471 CA3slm	Field CA3, stratum lacunosum-moleculare	463
1075 TTv2	Taenia tecta, ventral part, layer 2	605	1082 TTv3	Taenia tecta, ventral part, layer 3	605
501 VISpm4	posteromedial visual area, layer 4	533	257 VISpm6a	posteromedial visual area, layer 6a	533
92 ENT14	Entorhinal area, lateral part, layer 4	918	999 ENT12/3	Entorhinal area, lateral part, layer 2/3	918
617 MDc	Mediodorsal nucleus of the thalamus, central part	362	636 MDm	Mediodorsal nucleus of the thalamus, medial part	362
1045 ECT6b	Ectorhinal area/Layer 6b	895	977 ECT6a	Ectorhinal area/Layer 6a	895
28 ENT16a	Entorhinal area, lateral part, layer 6a	918	60 ENT16b	Entorhinal area, lateral part, layer 6b	918
243 AUDd6b	Dorsal auditory area, layer 6b	1011	156 AUDd6a	Dorsal auditory area, layer 6a	1011
52 ENT13	Entorhinal area, lateral part, layer 3	918	999 ENT12/3	Entorhinal area, lateral part, layer 2/3	918
1142 TR3	Postpiriform transition area, layers 3	566	1141 TR2	Postpiriform transition area, layers 2	566
10694 PAR2	Parasubiculum, layer 2	843	10695 PAR3	Parasubiculum, layer 3	843
712 ENTrm4	Entorhinal area, medial part, dorsal zone, layer 4	926	664 ENTrm3	Entorhinal area, medial part, dorsal zone, layer 3	926
712 ENTrm4	Entorhinal area, medial part, dorsal zone, layer 4	926	727 ENTrm5	Entorhinal area, medial part, dorsal zone, layer 5	926
565 VISpm5	posteromedial visual area, layer 5	533	257 VISpm6a	posteromedial visual area, layer 6a	533
883 PBIs	Parabrachial nucleus, lateral division, superior lateral part	881	891 PBlv	Parabrachial nucleus, lateral division, ventral lateral part	881
1026 SSP-ul6b	Primary somatosensory area, upper limb, layer 6b	369	945 SSP-ul6a	Primary somatosensory area, upper limb, layer 6a	369
471 CA3slm	Field CA3, stratum lacunosum-moleculare	463	479 CA3slu	Field CA3, stratum lucidum	463
471 CA3slm	Field CA3, stratum lacunosum-moleculare	463	495 CA3sp	Field CA3, pyramidal layer	463
872 DR	Dorsal nucleus raphe	165	100 IPN	Interpeduncular nucleus	165
460 MEV	Midbrain trigeminal nucleus	339	580 NB	Nucleus of the brachium of the inferior colliculus	339
162 LDT	Laterodorsal tegmental nucleus	1117	358 SLD	Sublaterodorsal nucleus	1117
757 VTN	Ventral tegmental nucleus	323	246 RR	Midbrain reticular nucleus, retrorubral area	323
523 MPO	Medial preoptic area	141	347 SBPV	Subparaventricular zone	141
1010 VISC4	Visceral area, layer 4	677	1058 VISC5	Periventricular hypothalamic nucleus, posterior part	141
1105 IA	Intercalated amygdalar nucleus	278	23 AAA	Visceral area, layer 5	677
149 PVT	Paraventricular nucleus of the thalamus	571	15 PT	Anterior amygdalar area	278
604 NI	Nucleus incertus	1117	238 RPO	Parataenial nucleus	571
564 MS	Medial septal nucleus	904	596 NDB	Nucleus raphe pontis	1117
860 PB1c	Parabrachial nucleus, lateral division, central lateral part	881	875 PBle	Diagonal band nucleus	904
860 PB1c	Parabrachial nucleus, lateral division, central lateral part	881	891 PBlv	Parabrachial nucleus, lateral division, external lateral part	881
800 Alv5	Agranular insular area, ventral part, layer 5	119	704 Alv1	Parabrachial nucleus, lateral division, ventral lateral part	881
907 PCN	Paracentral nucleus	51	599 CM	Agranular insular area, ventral part, layer 1	119
335 PERI6a	Perirhinal area, layer 6a	922	888 PERI2/3	Central medial nucleus of the thalamus	51
84 PL6a	Prelimbic area, layer 6a	972	363 PLS	Perirhinal area, layer 2/3	51
724 AHNp	Anterior hypothalamic nucleus, posterior part	88	708 AHNc	Prelimbic area, layer 5	922
347 SBPV	Subparaventricular zone	141	126 PVp	Anterior hypothalamic nucleus, central part	922
591 CLI	Central linear nucleus raphe	165	100 IPN	Periventricular hypothalamic nucleus, posterior part	922
973 VISl2/3	Lateral visual area, layer 2/3	409	421 VISl1	Interpeduncular nucleus	922
810 ACAv6a	Anterior cingulate area, ventral part, 6a	48	588 ACAv1	Lateral visual area, layer 1	409
700 AHNa	Anterior hypothalamic nucleus, anterior part	88	708 AHNc	Anterior cingulate area, ventral part, layer 1	48
232 COAp13	Cortical amygdalar area, posterior part, lateral zone, layer 3	655	224 COAp2	Anterior hypothalamic nucleus, central part	48
377 VISpl6a	Posterolateral visual area, layer 6a	425	902 VISpl5	Cortical amygdalar area, posterior part, lateral zone, layer 2	88
1125 ORBv15	Orbital area, ventrolateral part, layer 5	746	288 ORBv12/3	Anterior cingulate area, dorsal part, layer 6a	88
845 SUBd-sp	Subiculum, dorsal part, pyramidal layer	509	829 SUBd-m	Periventricular hypothalamic nucleus, posterior part	141
1015 ACAd5	Anterior cingulate area, dorsal part, layer 5	39	919 ACAd6a	Interpeduncular nucleus	141
216 COAp11	Cortical amygdalar area, posterior part, lateral zone, layer 1	655	224 COAp2	Lateral visual area, layer 1	165
613 VISl5	Lateral visual area, layer 5	409	421 VISl1	Paraventricular hypothalamic nucleus	165
10693 PAR1	Parasubiculum, layer 1	843	10695 PAR3	Anterior hypothalamic nucleus, central part	288
56 ACB	Nucleus accumbens	493	998 FS	Periventricular hypothalamic nucleus, posterior part	288
10701 PRE3	Presubiculum, layer 3	1084	10700 PRE2	Parahippocampal nucleus	1084
664 ENTrm3	Entorhinal area, medial part, dorsal zone, layer 3	926	727 ENTrm5	Presubiculum, layer 2	926
358 SLD	Sublaterodorsal nucleus	1117	238 RPO	Entorhinal area, medial part, dorsal zone, layer 5	926
268 NLOT2	Nucleus of the lateral olfactory tract, pyramidal layer	619	1139 NLOT3	Nucleus of the lateral olfactory tract, layer 3	1117
268 NLOT2	Nucleus of the lateral olfactory tract, pyramidal layer	619	260 NLOT1	Nucleus of the lateral olfactory tract, molecular layer	619
479 CA3slu	Field CA3, stratum lucidum	463	495 CA3sp	Field CA3, pyramidal layer	619
511 SCig-c	Superior colliculus, motor related, intermediate gray layer, su	10	494 SCig-a	Superior colliculus, motor related, intermediate gray layer, sul	463
310 SF	Septofimbrial nucleus	275	333 SH	Septohippocampal nucleus	10
484 ORBm1	Orbital area, medial part, layer 1	731	620 ORBm5	Septohippocampal nucleus	275
638 GU6a	Gustatory areas, layer 6a	1057	662 GU6b	Orbital area, medial part, layer 5	731
15 PT	Parataenial nucleus	571	181 RE	Gustatory areas, layer 6b	1057
478 SSP-II6a	Primary somatosensory area, lower limb, layer 6a	337	510 SSP-II6b	Nucleus of reunions	571
598 AUDv6b	Ventral auditory area, layer 6b	1018	1023 AUDv5	Primary somatosensory area, lower limb, layer 6b	337
				Ventral auditory area, layer 5	1018

137 CSI	Superior central nucleus raphe, lateral part	679	130 CSm	Superior central nucleus raphe, medial part	679
727 ENTm5	Entorhinal area, medial part, dorsal zone, layer 5	926	743 ENTm6	Entorhinal area, medial part, dorsal zone, layer 6	926
450 SSP-ul1	Primary somatosensory area, upper limb, layer 1	369	854 SSP-ul2/3	Primary somatosensory area, upper limb, layer 2/3	369
1139 NLOT3	Nucleus of the lateral olfactory tract, layer 3	619	260 NLOT1	Nucleus of the lateral olfactory tract, molecular layer	619
440 ORBI6a	Orbital area, lateral part, layer 6a	723	630 ORBIS	Orbital area, lateral part, layer 5	723